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Status of the Jefferson Lab Marathon Experiment TONG SU, Kent State Univ - Kent — MARATHON experiment (E12-010-103) at Hall A of Jefferson Lab (JLab) will perform precise measurements of the deep inelastic cross section ratio for scattering from the 3H and 3He mirror nuclei, in the Bjorken x kinematic range of x = 0.22 to x = 0.82. These measurements will result in the extraction of the neutron to proton structure function F_2^n/F_2^p ratio, and the ratio d/u quark distributions in the proton with minimal theoretical uncertainties. The experiment will also provide precise data on the EMC effect for both A=3 nuclear systems. The experiment is in progress. In this presentation, a brief introduction and the status of the experiment will be presented. This work is supported by NSF Grants PHY-1405814 and PHY-1714809 (Kent State University), and DOE Contract DE-AC05-06OR23177 (JLab).

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